

pressure of the migrants was so acute in the past three or four decades in the villages of our study that many large gardens as (for example 'Roybagh') have totally vanished and have been converted into cultivated land in Gotepara. The gradual deforestation for cultivation and settlement by man in this region has had a severe impact on the survival of the langurs. Threat to the survival of monkeys by direct or indirect interference by man is reported in literature in the Indian context. Sugiyama and Parthasarathy (1978) found a significant decrease in langur population at Dharwar by comparing populations of the years 1961 and 1976. According to them this decrease was in cultivated land (open land) due to increased human impact

on langurs.

Southwick and Siddiqui (1983) suggested that deforestation, increased agricultural development and human population growth were responsible for decline of rhesus populations in Uttar Pradesh.

We conclude that deforestation for cultivation and human settlement in this part of Nadia district, along with direct human interference, has had an adverse impact on the village dwelling langurs, leading probably to decreasing population.

A.B. DAS-CHAUDHURI

B.N. ROY

April 5, 1988.

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2. AN INTERESTING WAY OF A TIGER TREATING ITS WOUND

Injuries a tiger tries to heal can be classified into the following three categories:

- (a) Those which can be licked by the tongue,
- (b) those which cannot be licked but can be reached by front paws, and
- (c) those where neither tongue nor paw can reach.

Application of saliva through the tongue cleans the wounds and keeps away flies. This does not permit the maggots to set in, and the wound gradually dries up. Such wounds are licked many times in a day and each time the duration of continuous licking is quite long. Body parts where the tongue cannot reach are cleaned by licking a front paw several times, and then wiping the wound with the paw. The forehead is the region where this method is applied. Carnivores face real trouble when the injured part is out of reach of tongue or front paw. The shoulder region around the spine is one such place.

A friend of mine with a good knowledge of wildlife

has told me that injured tigers sometimes eat soil. On 13 May 1987, while observing the mating behaviour of a pair of tigers at Kanha National Park, I saw that the male tiger had an injury above its left shoulder just below the vertebral column. This tiger was seen scratching its wound with its rear paw. This seemed to aggravate the wound. For three days male and female were together around the same spot. On the last day the tiger left the tigress and went to a waterhole. I followed, and saw the tiger sitting flush with the ground in a thicket of grass on a *nala* bed. From elephant-back it looked as if he was eating something. The tiger rolled over and got up after some time. A dark coloured paste was visible on his lips. Since the tiger was after a tigress in oestrous, I thought that he might have licked the urine - spray of the tigress from the ground. The tiger then took some more water at a second waterhole, climbed a little bit on open ground, again sat flush with the ground, and started chewing the soil (clayey-loam).

This process continued for about a minute. The soil paste in the mouth was not put on the floor. Then the tiger crept forward, drifted a bit to the side and rolled over the 'sput-out' paste of soil in such a way that the paste was applied over the wound. It is likely that tigers treat their unreach-

able wounds, not by eating soil, but by applying soil on the wound in form of a paste mixed with saliva.

May 10, 1988

A.S. PARIHAR

3. ON A HUNTING PAIR OF SNOW LEOPARDS IN WESTERN NEPAL

Hunting attempts by snow leopard (*Panthera uncia*) have been observed by several naturalists (Dang 1967, Houghton 1913, Schaller 1972, Shah 1986, Stockley 1928 and Ward 1923). Among others, Dang (1967) reported repeated sightings of pairs of snow leopards hunting and feeding together. Other observers, however, neither support nor refute this viewpoint. Recently I observed a pair of snow leopards hunting together in the Langu valley of western Nepal.

On 10 May 1987, at 0750 hrs, I was monitoring the daily activity pattern of a herd of 41 Himalayan tahr (*Hemitragus jemlahicus*) in the Langu valley of western Nepal. The animals were feeding and moving horizontally on a steep (more than 40°) scrub slope at 3300 m. At 0755 hrs I saw an adult snow leopard slowly descending towards the feeding tahr. When the snow leopard was about 20 m above the tahr it started stalking. At 0756, I saw another adult, but smaller, snow leopard descending through the same route used by the previous one. For convenience I will call the larger snow leopard as leopard A and the smaller one as leopard B. When the smaller snow leopard neared the larger one, it moved to the right and, without stalking, descended towards the feeding tahr. When about 10 m, from the uppermost feeding tahr, it made a sudden rush and chased them straight downwards. Leopard B and the tahr ran about 120 m downwards and once the snow leopard was as close as 3 m to one of the large adult males. But it could not attack as it was off balance. At last the leopard halted on a small rock and looked upwards. Then leopard A started chasing downwards the tahr individuals which had moved to the left when leopard B had given chase. The running tahr and leopard A passed around the waiting leopard B but the latter could not attack the tahr due to their high speed. Leopard A could not catch the tahr either, and finally halted 20 m below leopard B. The entire chase sequence by both the snow leopards lasted less than two minutes.

When leopard A stopped, leopard B started moving upwards. After climbing about 50 m it again started stalk-

ing, facing downwards. Leopard A also started climbing up and once it happened to get to within 30 m of 11 tahr, mainly males, on the steep cliff, standing just above the snow leopard. The tahr gave warning calls and stamped their feet. The snow leopard stared and then ignored them. When leopard A joined leopard B it stopped stalking and both leopards started moving upwards through the pine forest. Before they disappeared into dense pine forest, they were seen sitting and looking back on three occasions. Once, leopard B squatted on the way, which confirmed that it was a female. Though I was observing them from a distance of about 3 km, judging from body size and dominant nature I am sure that leopard A was a male. After the snow leopards disappeared, I saw that the tahr had divided into three small herds and were busy feeding. One hour later one of the herds was seen feeding exactly on the same slope where the snow leopard had stalked and given chase.

Radio-tracking and study of pugmarks had confirmed the snow leopard's solitary nature in the Langu valley of western Nepal. The species appears to associate as mating pairs and as adult females with dependent offspring. Here, mating of snow leopards takes place between January and March (Jackson and Shah 1984). According to Schaller (1977), snow leopards in the Himalaya usually court in March and April and give birth in June and July, but he also mentions observing snow leopard cubs born in August. The gestation period averages 96-105 days (Kitchener *et al.* 1975, Marma and Yunchis 1968). Captive snow leopards are born between April and August, with a peak in May to June (Freeman and Hutchins 1978). These suggest that my observation in the Langu valley could be a late mating season pair of snow leopards. Captive snow leopards breeding pairs remain together for 2-3 days (Schaller 1977). The hunting pair I observed may therefore have been a breeding pair.

December 14, 1988.

KARAN BAHADUR SHAH

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